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LETTER FROM CYTEC INDUSTRIES REGARDING RESPIRATORY SENSITIZERS WITH COVER LETTER DATED 020893 (SANITIZED)

Chemical Category
DIISOCYANATE

8(d)

CYTEC COMPANY SANITIZED

CYTEC INDUSTRIES
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Attention: 8(d) Health & Safety Reporting Rule
(Notification/Reporting)

Re:

Generic Name: diisocyanate

Dear Sir/Madam:

On September 9, 1992, the following EPA person[illegible]t with Dr. Marvin A. Friedman and James S. Druzbacky of Cytec Industries - A B[illegible]ness Unit of American Cyanamid Company:

Dr. Lawrence Culleen
Mr. Rick Keigwin
Mr. Ray Kent
Mr. Paul Matthai
Mr. Ken Moss

The purpose of this meeting was to obtain an EPA assessment of our request for non-pulmonary sensitization classification COMPANY SANITIZED

During that meeting Keigwin/Kent stated that they would like to see some data showing that exposure to does not produce cytophilic antibodies in test animals. It was at that time that Dr. Friedman reconfirmed what was stated in writing to Dr. Culleen on 9/8/92,

In follow-up letters to the EPA, Cytec agreed to send the data as soon as it was obtained. We have enclosed with this letter a summary of the data results which we received January 18, 1993. Please note that this is a summary only and the writing of a full paper for publication is underway.

For this reason, we are requesting that this submission be regarded as confidential for a period of one year to allow for publication by .

We will submit a copy of the completed publication to your office as soon as possible.

The following is a brief description of the study:

The attached study represents the use of a recently developed experimental approach for the identification of respiratory sensitizers. This approach involves dermal exposures of mice to a compound which is a suspected respiratory sensitizer. The initial immune response to the compound is judged by the magnitude of lymph node cell proliferation observed 5 hours after exposure. A contact hypersensitivity response is monitored by an increase in skin thickness subsequent to a challenge exposure with a dilute solution of the compound. The type of humoral immune response observed subsequent to a dermal challenge exposure is judged by measurement of subsequent compound specific IgG anti-hapten antibody and IgE development.

Previous experiments performed to validate this experimental approach have demonstrated that contact and respiratory sensitizers both elicit immediate lymphnode proliferation. Contact hypersensitivity agents tend to elicit a stark increase in IgG-hapten antibodies with a minimal increase in specific IgE while respiratory sensitizers tend to elicit substantial increases in compound specific IgE and a variable increase in IgG-hapten antibodies.

The subject studies demonstrated that both tested elicited lymph node proliferation and increased skin thickness subsequent to challenge exposure. These results infer that both of the compounds tested are potent contact hypersensitizers which confirms previously reported experimental findings. The classical respiratory sensitizer substantially increased compound specific IgG-hapten antibodies and IgE. The of interest generated a minimal amount of IgG-hapten and IgE antibodies in comparison to the quantity of these antibodies produced by exposure. The antibody concentrations observed in response to were very similar to the concentrations observed for control mice. Based upon the outcome of the attached experimental studies the of interest demonstrated virtually no potential to act as a respiratory sensitizer. These results confirm previously reported experimental and clinical studies which indicated that the subject is a contact hypersensitizer but not a respiratory hypersensitizer.

If you have any questions, please contact me at (201) 357-3376.

Sincerely,

Patricia A. Vernon

Patricia A. Vernon
Associate Toxicologist
Toxicology & Product Stewardship Dept.

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